Abstract of the Disclosure

A set of difference vectors is generated by calculating the difference between the feature vector of each pattern in a specific pattern set and the average feature vector of each correct category. When a feature vector of an unknown pattern is inputted, the expected value of the probability density function of a specific category is obtained using an error distribution corresponding to the difference vector set as the probability density function. Then, the discriminant function value for the category is defined based on the obtained expected value and the pattern can be recognized.